

REMARKS

Reconsideration of this application, in view of the foregoing amendment and the following remarks, is respectfully requested.

Claims 1-5 were originally presented for consideration in this application. Claims 6-13 were added by previous amendments. Claims 5 and 9 have previously been canceled without prejudice or disclaimer. Claim 14 has been added above. Accordingly, claims 1-4, 6-8 and 10-14 are currently pending in this application.

The following rejections were set forth in the Office Action:

1. Claims 1-4, 6-8 and 10-12 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,173,788 (Lembcke) in view of U.S. Patent No. 4,137,970 (Laffin);

2. Claim 13 stands stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,173,788 (Lembcke) in view of Published PCT Application No. WO 02/20941 (Freyer).

Regarding the obviousness rejections, the applicant respectfully traverses the rejections. It is important to understand what is disclosed by the Lembcke reference. This reference describes a conventional (longitudinally compressible) packer in which a groove is provided on an outer surface of a seal element 12 to accommodate a cable (see FIG. 1). When the seal element 12 is longitudinally compressed, the cable is sealed against by the seal element (see FIG. 2). However, the reference also mentions several other possible configurations of the seal element (col. 2, lines 51-57): a longitudinal bore can be used instead of a groove, the seal element can have a section left out to accommodate the cable, and the seal element can be made up of a plurality of segments with longitudinal splits for insertion of the cable therein.

It should also be appreciated that a significant problem exists with securing a cable in an opening formed through a seal element which is thereafter longitudinally compressed. As the seal element is longitudinally compressed, it will no doubt grip the cable and tend to longitudinally compress the cable. After all, it is intended for the seal element to seal against the cable, and so gripping engagement between the seal element and the cable is to be expected when the seal element is compressed.

The examples described in the present specification uniquely solve this problem by utilizing a swellable seal element instead of a longitudinally compressible seal element. As the swellable seal element swells, it seals against the cable without also longitudinally compressing the cable. Such longitudinal compression could be especially hazardous if, for example, the cable is a fiber optic cable or a hydraulic control line. The examples described in the present specification eliminate this hazardous condition.

The Laflin patent describes a swellable packer. It would not be obvious to combine the teachings of the Lembcke and Laflin patents to produce the invention recited in any of independent claims 1, 6 and 11. There is no objective reason why a person skilled in the art would incorporate the swellable seal material described by Laflin into the packer described by Lembcke. For example, this combination would still suffer from the problem of longitudinally compressing the cable.

Thus, the rejections do not satisfy the requirements set forth in the seminal U.S. Supreme Court case of *Graham v. John Deere* for evaluating whether an invention would have been obvious to a person of ordinary skill in the art at the time the invention was made. These requirements include determining the level of skill of the person having ordinary skill in the art, the scope and content of the prior art, and the differences between the claimed invention and the prior art. Additional considerations may include factors such as failure of others to solve the relevant problem, long felt but unsatisfied need, skepticism of others, teaching away in the prior art, unexpected results, copying, the pace of innovation in the art, commercial success, etc.

In the *Graham v. John Deere* opinion, the Supreme Court also explicitly warned against “slipping into use of hindsight” in obviousness determinations. *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966). Additionally, in the more recent case of *KSR v. Teleflex*, the Supreme Court has reiterated that an invention’s merit is not to be evaluated from a perspective of a person having the benefit of already knowing the solution conceived by the inventor, but rather as it would have been perceived by a person having only ordinary skill in the pertinent art. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742-43 (2007).

In the present case, the person having ordinary skill in the art would likely have a bachelor’s degree in engineering or a related applied science field, and would likely have several years’ experience in designing packers for use in subterranean wells. Such a person would be aware of conventional packer seal materials and setting mechanisms.

The scope and content of the prior art have been discussed above. Since the combination of reference teachings would not, at the time the invention was made, have influenced a person of ordinary skill in the art to use the swellable seal material of Lafin in the packer of Lembcke, the claims are not obvious over these references.

The Board of Patent Appeals and Interferences recently addressed this issue in *Ex Parte Whalen II* (Appeal 2007-4423, July 23, 2008) as follows:

The U.S. Supreme Court recently held that rigid and mandatory application of the “teaching-suggestion-motivation,” or TSM, test is incompatible with its precedents. *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). The Court did not, however, discard the TSM test completely; it noted that its precedents show that an invention “composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.*

The Court held that the TSM test must be applied flexibly, and take into account a number of factors “in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed.” *Id.* at 1740-41. Despite this flexibility, however, the Court stated that “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the way the claimed new invention does.” *Id.* “To facilitate review, this analysis should be made explicit.” *Id.*

[W]hen the prior art teaches away from the claimed solution as presented here . . . obviousness cannot be proven merely by showing that a known composition could have been modified by routine experimentation or solely on the expectation of success; it must be shown that those of ordinary skill in the art would have had some apparent reason to modify the known composition in a way that would result in the claimed composition.

In the present case, a person of ordinary skill in the art would not have been motivated to combine the swellable material of Laflin with the packer of Lembke, at least in part because there is no reason or need for the swellable material in the Lembke packer. Lembke describes a mechanically set packer, and that seal material should be longitudinally compressed to flow about a cable in a groove.

In contrast, Laflin teaches that a packer should seal by swelling. No person skilled in the art would have any reason to use a swellable seal material in the Lembke packer, at least in part because there is no need for it. Accordingly, withdrawal of the obviousness rejections is respectfully requested.

In addition, each of independent claims 1, 6 and 11 has been amended above to recite that the slit extends between the through-going opening and the outer surface of the packer prior to actuation of the packer. Neither of the Lembke and Laflin references describes these features of the invention as now recited in the independent claims. Therefore, a *prima facie* case of obviousness is not made out. For this additional reason, withdrawal of the rejections of claims 1, 6, 11 and their dependents is respectfully requested.

Regarding the obviousness rejection of claim 13, due to the allowability of its independent claim 11, the dependent claim 13 is also allowable. Withdrawal of the rejection of claim 13 is respectfully requested.

New claim 14 contains subject matter deleted from claim 6, since this subject matter is not needed to distinguish the claim from the cited references.

In view of the foregoing amendment and remarks, all of the claims pending in this application are now seen to be in a condition for allowance. A Notice of Allowance of claims 1-4, 6-8 and 10-14 is therefore earnestly solicited.

The examiner is hereby requested to telephone the undersigned attorney of record at (972) 516-0030 if such would expedite the prosecution of the application.

Respectfully submitted,

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Dated: November 6, 2008

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I hereby certify that this correspondence is being
filed in the U.S. Patent and Trademark Office
electronically via EFS-Web, on November 6, 2008.

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